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Magalie R. Salas
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington DC 20554

Re: Ex Parte Presentation
WB Docket 94-102

Dear Ms. Salas,

On Thursday, June 15, 2000, representatives of Ericsson Inc. met with representatives of the Commission to discuss Ericsson's product plans and schedules for E-911 Phase II location services. Ericsson reviewed the specific location technologies that have been evaluated by the company and discussed the tasks and the typical product development cycle for its terminal and wireless network products.

Present at the meeting on behalf of Ericsson were Barbara Baffer, Director, Regulatory Affairs, and C.N.S. Guruparan, Engineering/Technical Market Development. Representing the FCC were Blaise Scinto, Dan Grosh and Patrick Forster.

The attached materials were distributed at the meeting.

Respectfully submitted,

Barbara Baffer

Barbara Baffer

Cc: Blaise Scinto
Dan Grosh
Patrick Forster

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Ericsson Inc.
Office of Public Affairs
1634 I Street, N.W., Suite 600
Washington, DC 20006

Telephone: (202) 783-2200
Fax: (202) 783-2206

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E 911 and Ericsson

Discussion
on
Product Plans and Schedules
for
E-911 Phase II
Location Services

June 15, 2000

C.N.S. Guruparan, Market Development.

Ericsson's Efforts

- Working with various technology partners evaluating and developing different E-911 Phase II location technologies
- Working with Carriers to determine their requirements
- Working with Infrastructure manufacturers coordinating development efforts
- Working with Handset manufacturers coordinating development efforts
- Participating in efforts to standardize various location technologies for the different air-interface standards

Technologies being Evaluated by Ericsson

- Network-Assisted GPS (NA-GPS)
- Cell Global Identity / Timing Advance (CGI-TA)
- Enhanced Observed Time Difference (E-OTD)
- Uplink Time of Arrival (UL-TOA)
- RadioCamera™

Product Development - What is needed?

- Cellular Radio Transceiver
  - Multi-band receiver
  - Multi-band transmitter
- GPS Receiver
  - Radio Receiver (1575 MHz)
  - Baseband Chip (control and computation hardware)
  - Antenna
- Mechanical Platform
  - Exterior consumer-oriented package
  - Internal frame and shielding to meet regulatory and performance requirements

Product Development - What is needed? - cont.

- Baseband Chipset
  - Control and Computational Hardware
  - Control and Computational Software
- User Interface
- Other Hardware
- Network Support
  - Positioning Server
  - Location Measurement Unit (LMU)
  - Standards-compliant signaling software in switches and base stations

Tasks in Product Development

- Finalize Standards
- Design Mechanical Platform*
- Design Transceivers*
- Design Baseband Chipset*
- Design rest of Hardware
- Perform Board Layout

Tasks in Product Development - cont.

- Design Control and Computational Software
- Design User Interface
- Implement Software including User Interface
- Conduct Alpha Testing of Hardware and Software
- Conduct Beta Testing of Hardware and Software
- Test products for interoperability with products from various vendors

Tasks in Product Development - cont.

- Perform FCC, UL and CTIA certification tests
- Conduct field trials
- Release product to market

Typical Product Development Cycle

- Pre-Study Phase - 3 to 6 months
  - Evaluate Market Need - Determine Product Viability
- Feasibility Phase - 3 to 12 months
  - Conduct Market Research - Determine Product Requirements - Start designing long lead items
- Execution Phase - 12 to 18 months
  - Design Mechanical Package - Design and implement Transceivers - Design and implement Other Hardware - Design and implement Software - Conduct Alpha, Beta and Interoperability Tests - Conduct Type Acceptance Tests - Conduct Field Trials - Release Product to Market

ALI Challenges

- Operators have until October 1, 2000 to make a decision - no orders have been placed for handsets
- Operators do not have a consistent view of proposed solutions
- Operators are concerned about the high cost of proposed solutions
- GPS Modules need to be developed for high-end, mid-tier and low cost products in CDMA, TDMA and GSM standards

Conclusion

- An achievable E-911 Phase II implementation schedule must be based on realistic development plan and schedule
- Volume and timing requirements for achieving E-911 ALI solutions should be modified according to the record
- Strong consideration should be placed on the record provided by equipment manufacturers as they are the parties that must provide carriers with compliant E-911 Phase II solutions